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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,473

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Astrid Hauser

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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

06/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,473	Applicant(s) HAUSER ET AL.	
	Examiner HAMID R. BADR	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drake et al. (2000, Soy protein fortification affects sensory, chemical and microbiological properties of dairy yogurts; hereinafter R1) in view of Zhang et al. (1997, Effect of soy protein hydrolysate (SPH) on proliferation of lactic acid bacteria; hereinafter R2) and JP 59082050 (Abstract, hereinafter R3).

3. R1 discloses making yogurts with milk (10% solids) containing 1-5% (w/w) soy protein (Page 1244, materials and methods). Given that milk contains about 3% protein, the yogurt will contain about 3% milk protein.

4. R1 teaches using a yogurt starter culture including *Lactobacillus bulgaricus* and *Streptococcus thermophilus* (page 1245, Col. 1, Microbiology and instrumental measurements).

5. While R1 discloses yogurt product containing milk protein and soy bean protein, R1 is silent regarding the inclusion of soy protein hydrolysate and vegetable oil in the formulation.

6. R2 discloses the incorporation of soy protein hydrolysate (SPH) in fermented milk. R2 reports that the soy protein hydrolysate stimulates the growth of bacteria in the

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fermented. R2 discloses that the hydrolysate can not only serve as a nutrition reinforcer, but also plays an important role in the yogurt manufacturing. (Abstract)

7. Given that R1 and R2 disclose the inclusion of soy protein and protein hydrolysate in fermented milk, the ratio of hydrolyzed protein to non-hydrolyzed protein, as presently claimed, can be optimized by an artisan.

8. R1 and R2 are silent regarding the use of vegetable oil in the formulation.

9. R 3 discloses a pudding which is prepared by lactic acid fermentation of an aqueous emulsion of soybean protein hydrolysate. (Abstract)

10. R3 teaches using the protein hydrolysate at below 10% and more preferably 2-8%.

11. R3 teaches of using vegetable oil or animal fat at 1/4-1 times the dry protein content of the formulation. Assuming a 5% solids from the soy protein and 2% solids from the soy protein hydrolysate and about 3% solids from the milk protein for a total 10% solids, about 2.5-10% oil can be added to the formulation having so much protein.

12. Given that increased fermentation times or lower final titratable acidities have been reported with soy-based yogurt, due to a lack of essential nutrients for the lactic acid bacteria (R1, page 1246, col. 2, first 4 lines) and dairy yogurts fortified with soy protein exhibit higher viscosities than control dairy yogurts (page 1246, col. 2, first paragraph), incorporation of some soy protein hydrolysate to alleviate the viscosity and thickness problems brought about by unhydrolyzed soy protein would be obvious to those of ordinary skill in the art. The limitation of claim 11 of 40% or more hydrolyzed

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protein, can be experimentally optimized by an artisan in light of the amounts of protein hydrolysate disclosed by R3.

13. Given that a fermented yogurt product can be prepared containing hydrolyzed and unhydrolyzed soy bean protein, Stevens value (texture indication) and viscosity (thickness) will be intrinsically resulted in the ranges as presently claimed.

14. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make a yogurt containing soy protein as taught by R1 and replace some of the unhydrolyzed soy protein with soy protein hydrolysate at taught by R2 and R3. One would do so to prepare a value added product made with more available, less expensive proteins such as soy bean protein having other nutritional benefits such as cholesterol lowering effects and provision of isoflavones. Absent any evidence to contrary and based on the combined teachings of the cited references, there would be a reasonable expectation of success in making a yogurt product as presently claimed.

Response to Arguments

Applicants arguments have been thoroughly reviewed. These arguments are not deemed persuasive for the following reasons.

1. Applicants argue that the Examiner has impermissibly used the benefit of hindsight as it starts from the presumption that a person of ordinary skill in the art would have known at the time the invention was made that incorporation of soy protein

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hydrolyzate may alleviate viscosity and thickness problems brought about by unhydrolyzed soy protein.

a. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Further, it is the examiner's position that the rejections are not based on hindsight but rather based on motivation to combine found in the references themselves.

Moreover, those of skill in the art know that problems, with regard to thickness and viscosity, caused by the incorporation of natural polymers such as proteins and starch can be solved by substituting a protein of the natural polymer with a hydrolysate. It is obvious that the thickness, viscosity, or texture problems caused by the incorporation of soy proteins in a fermented product such as yogurt can be remedied by substituting some of the un-hydrolyzed protein with a protein hydrolysate.

On the other hand; "obviousness under 103 is not negated because the motivation to arrive at the claimed invention as disclosed by the prior art does not agree with appellant's motivation", *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1990), *In re Tomlinson*, 150 USPQ 623 (CCPA 1966).

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2. Applicants argue that Office points to no teaching of any special viscosity thickness problems associated with the use of unhydrolyzed soy protein which may be overcome by incorporating hydrolyzed soy protein.

a. Once the art recognizes the use of the claimed unhydrolyzed and hydrolyzed soy proteins in fermented foods such as yogurt, the manipulation of the product for viscosity, thickness, texture and flavor would be well within the skill of the art. In the absence of a showing to the contrary, the manipulation of ratios of unhydrolyzed and hydrolyzed soy proteins as presently claimed is seen to be no more than optimization of such components for their effects on viscosity and thickness and well within the skill of the art.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr
Examiner
Art Unit 1794

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794